Stress Corrosion Cracking Prevention MAT Group

Program Name: Stress corrosion cracking (SCC) of weldable aluminum armour alloy 2519.

Objective: Lightweight, affordable and stress corrosion resistant alloy for armored fighting vehicles. (AAAV, AFAS–US; TRACER, Terrier–UK)

Payoff: Welded joints of 2519 Al–alloys are highly resistant to SCC with improved ballistic protection and significant saving in ownership cost.

Advanced amphibious assault vehicle (AAAV) subject to high material fabrication cost, stress–corrosion cracking at weldments and high frequency of complete base overhaul.

Future Activities: Develop protective coatings for general corrosion and shock damage in specific applications.

http://www.dtic.mil/

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